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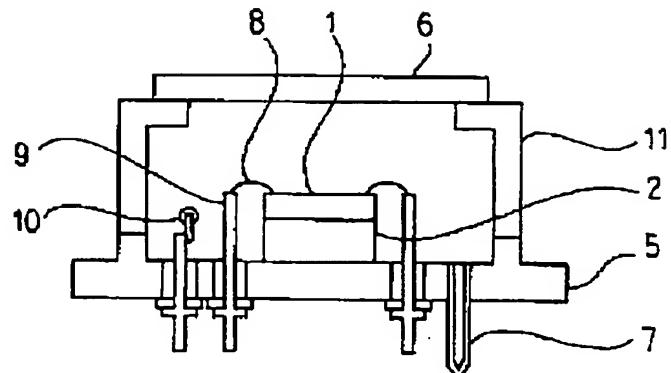
APPLICATION DATE : 28-02-96
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APPLICANT : MITSUBISHI ELECTRIC CORP;

INVENTOR : KAWASHIMA YASUO;

INT.CL. : G01J 1/02 H01L 31/02

TITLE : INFRARED DETECTOR



ABSTRACT : PROBLEM TO BE SOLVED: To reduce the production cost without using laminating ceramic structure.

SOLUTION: An electronic cooling element 2 is joined to a base plate 5 by adhesion or soldering, and an infrared detection element 1 is joined thereto by adhesion or soldering. Wiring of the detection element 1 and an airtight terminal 9 is, for instance, performed by aluminum wire bonding 8. A window 6 uses, for instance, a low melting point glass, and airtight joining is performed on a cap 11. The cap 11 is airtight-joined to the base plate 5 by welding. After a chip pipe 7 is connected to a vacuum exhaust device and exhaust is performed up to vacuum in a vessel, the chip pipe is sealed to be collapsed. A getter 10 is formed by sintering zirconium or the like, turning on electricity and heating are performed, and gas discharged into the vessel is adsorbed by activating a surface. An airtight terminal 9 has a through hole, a ceramic parts metalized on the circumference of a hole and a metal terminal having a flange so as to adhere to the circumference of the hole through a through hole of the ceramic parts can be obtained by simultaneously brazing and jointing them, and the manufacturing process of laminating ceramic structure is not needed.

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